

REMARKS

Claims 5-24 are pending. Claims 15 and 21 have been amended. No new matter has been added.

Disclaimers Relating to Claim Interpretation and Prosecution History Estoppel

Claims 15 and 21 have been amended, notwithstanding the belief that these claims were allowable. Except as specifically admitted below, no claim elements have been narrowed. Rather, cosmetic amendments have been made to the claims and to broaden them in view of the cited art. Claims 15 and 21 have been amended solely for the purpose of correcting informalities, and the amendments were not necessary for patentability.

Any reference herein to “the invention” is intended to refer to the specific claim or claims being addressed herein. The claims of this application are intended to stand on their own and are not to be read in light of the prosecution history of any related or unrelated patent or patent application. Furthermore, no arguments in any prosecution history relate to any claim in this application, except for arguments specifically directed to the claim.

Drawings

The Examiner objected to Figures 1-5 as informal. Substitute formal drawings are enclosed. The undersigned apologizes for failing to include the substitute drawings with the response filed 12/16/2005.

Claim Objections

The Examiner objected to claims 5, 10, 15, 20 and 21. This objection is respectfully traversed. Claim 15 has been amended to change the phrase “the process comprising” to “the apparatus comprising”, as suggested by the Examiner. Claim 21 has been amended to include a final period, as suggested by the Examiner.

The Examiner's remaining concerns appear to be that the claims sparingly use punctuation such as colons, commas and semicolons. This objection is traversed. There is no basis in the law, rules or MPEP for making such an objection. Aside from requiring a final period, there is no mention in 37 CFR 1.75 and MPEP § 608.01(i)-(p) or anywhere else of internal punctuation. Given that the rules specifically encourage indentations, the rules' silence on commas, semicolons and colons implies that they are entirely optional. The Examiner has provided no citation which supports the objection. Nor has the Examiner stated that the claims are in any way unclear due to the sparsity of punctuation, and indeed the claims are quite clear. Withdrawal of the objection is therefore respectfully suggested.

Claim Rejections - 35 USC § 102

The Examiner rejected claims 5, 6, 8-11, 13-16 and 18-24 under 35 USC § 102(e) as anticipated by Dai (USP 6,658,016). This rejection is respectfully traversed.

The central flaw with the rejections is that the Examiner has failed to apply the proper legal standards. To anticipate, the reference must disclose either explicitly or inherently each and every limitation in the claim. Where the references fail to anticipate, they may render the claimed invention obvious, but only if there is some motivation to combine and modify the references to obtain the claimed invention. Here, the cited references do not disclose, teach or suggest the claimed invention – they don't even come close. The rejections are little more than a mechanical recitation of claim language and a citation to a reference which does not show the claimed feature. Absent a good ground for rejection, the Examiner must allow the claims.

Dai is directed to a switching fabric. In the Background of the Invention section and the Summary of the Invention section, Dai clearly states that switching fabrics are different from and do not include crossbar switches. It is also clear Dai believes that crossbar switches are inferior to switching fabrics:

- Common switching devices include cross bar switching devices, and packet switching fabrics.¹
- One problem with cross bar switching devices is achieving scalability of the number of network ports. Because of the NxN complexity of the interconnection resources, exponential costs are incurred when increasing the number of network ports of a cross bar switching device.²
- Because packet switching fabrics include multiple switching devices, fabrics provide better scalability than crossbar switches because each of the switching devices of the fabric includes a plurality of network ports, and the number of switching devices of the fabric may be increased in order to increase the number of network connections for the switch.³
- A further objective of the present invention is to provide a packet switching fabric providing convenient scalability wherein the total number of network ports supported by the fabric may be scaled up without incurring exponential costs such as in cross bar switching devices.⁴
- Another object of the present invention is to provide a packet switching fabric providing convenient scalability wherein the total number of network ports supported by the fabric may be scaled up without incurring exponential costs such as in cross bar switching devices.⁵

Claim 1 is directed to a switching apparatus which comprises “a ring of plural data ports” and “a crossbar”. The Examiner asserted that claim 1 is anticipated by Dai’s disclosure of “packet

¹ 1:25-26.

² 1:37-42.

³ 1:43-48.

⁴ 2:54-57.

⁵ 3:6-10.

switching fabric 10 (switching apparatus) of Figure 1”, and that Dai’s “packet transfer switching device 12” in Figure 1 is the claimed crossbar. Yet, as explained above, Dai denigrates crossbar switches and nowhere discloses, teaches or suggest a crossbar switch in describing Figure 1 or any other embodiment. Indeed, Dai teaches away from using crossbar switches. The rejection of claim 5 should therefore be withdrawn.

Independent claims 10, 15 and 20 include similar recitations, and are therefore also clearly novel over Dai.

The rejection of claim 6 is also flawed. The Examiner cites to Dai’s “switching device 12” as disclosing “a parser for separating the frames from the messages to form two separate data streams”. Dai has no disclosure, teaching or suggestion that the switching device 12 or any other structure has the claimed functionality. The rejection of claim 6 should therefore be withdrawn.

The rejection of claim 8 is also flawed. Claim 8 recites, “plural gates respectively associated with each data port for allowing a given message into a given data port only if no other data is present in the given data port”. The Examiner cites Dai at 8:62-9:4, which states: “The control ring processing circuit 60 provides for receiving, developing, processing, and transmitting control messages including output queuing controlled packet transfer protocol messages between the devices via the control ring 25 (FIG. 1) in order to manage bandwidth resources of segments 18 of the data ring 19 (FIG. 1) and bandwidth resources of the memory unit links 103, 105 (FIG. 2A) as data is transferred via the data ring from source ones of the switching devices to corresponding destination ones of the switching devices.” This does not at all support the rejection of claim 8, and it should therefore be withdrawn.

The rejection of claim 9 is also flawed. Like claim 1, claim 9 recites “the crossbar” and is limited to a “controller” having specific functionality. Since Dai does not disclose, teach or suggest “the crossbar”, Dai cannot disclose the claimed “controller”. The rejection of claim 9 should therefore be withdrawn.

Claims 11, 13-14, 16 and 18-24 have similar recitations and are not anticipated by or obvious from Dai for similar reasons as those set forth above.

Claim Rejections - 35 USC § 103

The Examiner rejected claims 7, 12 and 17 under 35 USC § 103 as obvious from Dai in view of Szczepanek et al. (USP 6,621,818). This rejection is respectfully traversed. As explained above, the based independent claims are patentable over Dai.

Claim 7 recites, “a clock for moving the messages by one data port for every clock pulse.” Claim 12 recites, “moving the messages by one data port for every clock pulse.” Claim 17 recites “means for moving the messages by one data port for every clock pulse.” The Examiner correctly states that Szczepanek discloses a clock, and that it would be obvious to use a clock in Dai. However, it is not at all correct to say that it would be obvious to use Szczepanek’s clock in the manner claimed – “moving the messages by one data port for every clock pulse.” Neither Szczepanek nor Dai disclose, teach or suggest this feature. The rejection of claims 7, 12 and 17 should therefore be withdrawn.

This exact argument was presented in the response filed 12/16/2005.

Conclusion

It is submitted, however, that the independent and dependent claims include other significant and substantial recitations which are not disclosed in the cited references. Thus, the claims are also patentable for additional reasons. However, for economy the additional grounds for patentability are not set forth here.

In view of all of the above, it is respectfully submitted that the present application is now in condition for allowance. Reconsideration and reexamination are respectfully requested and allowance at an early date is solicited.

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Amdt. Dated 6/1/2006
Response to Office action dated 3/3/2006

The Examiner is invited to call the undersigned attorney to answer any questions or to discuss steps necessary for placing the application in condition for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Sereboff', written over a horizontal line.

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